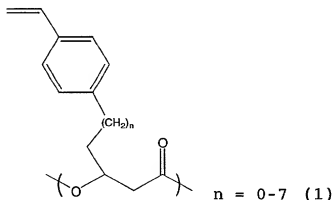


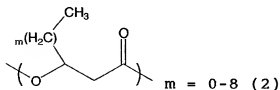
WHAT IS CLAIMED IS:

1. A polyhydroxyalkanoate type polyester comprising one % or more of 3-hydroxy- $\omega$ -(4-vinylphenyl)alkanoic acid unit represented by chemical formula (1):



where n is one or more integers arbitrarily selected from 0 to 7.

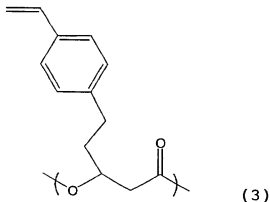
2. The polyester according to claim 1, wherein the polyester further comprises 3-hydroxy-alkanoic acid unit represented by chemical formula (2):



where m is one or more integers arbitrarily selected from 0 to 8.

3. The polyester according to claim 1, wherein

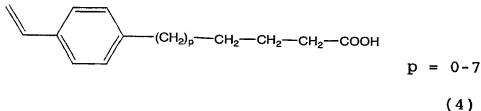
the polyester contains one unit % or more of 3-hydroxy-5-(4-vinylphenyl)valeric acid unit represented by chemical formula (3) in the molecule,



4. The polyester according to claim 1, wherein the polyester has a number-average molecular weight ranging from 3000 to 200000.

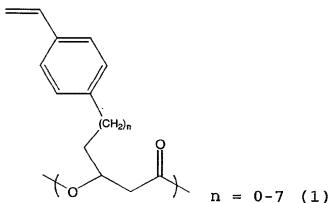
5. A method of producing a polyester comprising the steps of:

(1) providing  $\omega$ -(4-vinylphenyl)alkanoic acid represented by chemical formula (4) as a raw material,



where p is one or more integers arbitrarily selected from 0 to 7; and

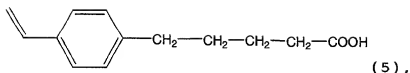
(2) producing a polyester comprising one unit %  
or more of 3-hydroxy- $\omega$ -(4-vinylphenyl)alkanoic acid  
unit represented by chemical formula (1) by using a  
microorganism capable of producing the polyester from  
the  $\omega$ -(4-vinylphenyl)alkanoic acid,



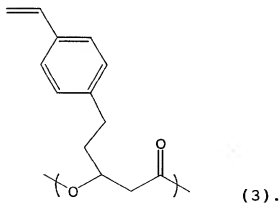
where  $n$  is one or more integers arbitrarily selected  
from 0 to 7.

6. The method according to claim 5, wherein the  
step (2) comprises the step (3) of culturing the  
microorganism in a culture medium containing the  $\omega$ -  
(4-vinylphenyl)alkanoic acid.

7. The method according to claim 5, wherein the  
 $\omega$ -(4-vinylphenyl)alkanoic acid is 5-(4-  
vinylphenyl)valeric acid represented by chemical  
formula (5),



and the polyester contains one unit % or more of 3-hydroxy-5-(4-vinylphenyl)valeric acid unit represented by chemical formula (3) in the molecule,



8. The method according to claim 6, wherein the culture medium contains a peptide source in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

9. The method according to claim 8, wherein the peptide source is polypeptone.

10. The method according to claim 6, wherein the culture medium contains yeast extract in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

11. The method according to claim 6, wherein

the culture medium contains an organic acid or its salt in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

12. The method according to claim 11, wherein the organic acid or its salt is selected from the group consisting of pyruvic acid, oxalacetic acid, citric acid, isocitric acid, ketoglutaric acid, succinic acid, fumaric acid, malic acid, lactic acid and a salt thereof.

13. The method according to claim 6, wherein the culture medium contains an amino acid or its salt in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

14. The method according to claim 13, wherein the amino acid or its salt is selected from the group consisting of glutamic acid, aspartic acid and a salt thereof.

15. The method according to claim 6, wherein the culture medium contains a carbohydrate in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

16. The method according to claim 15, wherein the carbohydrate is selected from the group consisting of glyceraldehyde, erythrose, arabinose,

xylose, glucose, galactose, mannose, fructose, glycerol, erythritol, xylitol, gluconic acid, glucuronic acid, galacturonic acid, maltose, sucrose and lactose.

17. The method according to claim 6, wherein the culture medium contains a straight chain alkanolic acid having 4 to 12 carbon atoms or its salt in addition to the  $\omega$ -(4-vinylphenyl)alkanoic acid.

18. The method of according to claim 6, wherein the step (2) further comprises the step (4) of recovering from the microorganism the polyester produced by the microorganism.

19. The method according to claim 5, wherein the microorganism belongs to genus *Pseudomonas*.

20. The method according to claim 19, wherein the microorganism is selected from the group consisting of *Pseudomonas cichorii* YN2, FERM BP-7375, *Pseudomonas cichorii* H45, FERM BP-7374, *Pseudomonas jessenii* P161, FERM BP-7376, and *Pseudomonas putida* P91, FERM BP-7373.

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